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Citation: Ulbrich, Frank (2002) Failing with Success: a study of e-commerce adoption and knowledge transfer to small and medium-sized enterprises in Sweden. In: 2nd IFIP WG 8.4 Conference on E-Business: Multi-disciplinary Research and Practice, 11-12 June , 2002, Copenhagen, Denmark.

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Failing with Success

A study of e-commerce adoption and knowledge transfer to small and medium-sized enterprises in Sweden

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ABSTRACT

In this paper a particular e-commerce dissemination project for small and medium-sized enterprises is analysed in view of understanding different phases in the process and identifying determining factors for the successfulness of the project that in fact depends on different perspectives one can choose from.

INTRODUCTION

The European Union (EU) supports many information and communication technology (ICT) dissemination projects, even if some of them are judged to fail from the beginning.

During the past years, politicians expressed their wish to strengthen Europe's international position. This resulted among others in the EU's e-Europe initiative. In his description, Turner (2001) shows how Europe might reach such a leading position in the global market. He stresses that companies of all sizes need to improve their competitive advantages. Callon (1996) argues that this can be achieved by widely using modern and innovative ICT. Here, e-commerce can be seen as one example for innovative ICT, and it seems that the EU expect e-commerce to become a technology that will give European companies competitive advantages in the global market. This assumption is confirmed by the fact that many e-commerce projects were initiated and/or funded by the EU or its memberstates during the past years.

But do politicians expect too much and what price do companies have to pay to obtain a new competitive advantage through e-commerce? Shapiro and Varian (1998) e.g. point out the risk with lock-in situations where companies become dependent on technology even if it probably will help to achieve competitive advantages. And even Porter (2001) states that a number of basic economic principles will most likely not change when adopting e-commerce.

McKenna (1997) shows that time, technology and customer services are increasingly interrelated. He means that modern technology will significantly influence the way of doing business. It will become a key point when rating how well a company will be able to meet a customer's wish. In order to be able to give more individual service to customers, Davis and Davidson (1991) state that companies need to capture and utilize information about their customers at each point of contact, and not only a few. Consequently, ICT becomes part of doing business and Hagel and Armstrong (1997) mean that it even will revamp competitive and managerial situations.

However, are European companies prepared to handle the new situation? Especially small and medium-sized enterprises (SMEs) often do not have enough knowledge about how to use new technology in their companies. Thus, ICT dissemination projects come into the picture. To accelerate the implementation process of e-commerce among European SMEs different projects are run. From these projects it will depend whether Europe can quickly become a leading position. Therefore, it is interesting to investigate whether these projects actually succeed or fail.

Objective of the Paper

The objective of this paper is to describe a particular ICT dissemination project and whether it was a success or failure by finding factors and interrelations between them to determine the successfulness of the project.

Findings are considered to be of primarily interest for those dealing with project management in similar projects and/or those deciding of funding such projects.

A SHORT PROJECT DESCRIPTION

An e-commerce dissemination project run by Blekinge Institute of Technology during the year 2000 was starting point for this study. The project was called "Companies in cooperation meet tomorrow challenges" (in Swedish: "Företag i samverkan möter framtidens utmaningar"). Its objective was to raise SMEs competition ability through supporting them in the process of implementing electronic commerce (cf. Länsstyrelse Blekinge 1999).

At the point the project was granted, it could be observed that smaller companies would more and more be forced by larger companies to implement some form of e-commerce. Therefore, the participating companies should be helped to survive in a more and more competitive market and the project focused on subcontractors to larger Swedish companies and the basic idea was to start from the companies' demands.

Initially, the project was designed to consist of three different phases. The first phase included competence improvement, where companies should have been made more aware of benefits with e-commerce. As a measurable result, 150 companies should participate in such activities and even more should be reached by mailing out information about such activities. The second phase was planned to consist of cooperation and collaboration between the participating SMEs. During this phase, at least 25 companies should have created local networks, partly in order to discuss problems and ideas with each other, partly to see whether some business could be done together. Finally the third phase should include analysing businesses of 25 project participants in order to present individual action plan on how to implement e-commerce. The third phase was meant to be accomplished by external consultancies.

METHODOLOGICAL APPROACH

Some researchers believe that nothing like a best research method exists. Often, a combination or modification is used for certain purposes. Schein e.g. argues, "there is no one best way, and that what we must strive for is a deeper understanding of each of the many ways to further our knowledge of human systems" (Schein 1986, p. 9).

Therefore, it is actually irrelevant to question whether to use quantitative or qualitative research methods or techniques in isolation. "Important is, instead, the

congruence between the scope of the research and the method we have chosen in order to realize this scope.” (Berg 2000, p. 9) In order to gain a better understanding in the research object it is therefore important to perceive reality as it is. Lundeberg (1993) believes that shifting between different perspectives will help the researcher to better perceive reality as it really is. Therefore, I decided to shift between three different perspectives when describing and analysing the empirical material: a) a project management perspective, b) a consultancy perspective, and c) a SME perspective.

BACKGROUND

Small Enterprises

The average company that participated in the analysing phase of the project had between 25-50 employees and was family-owned. Three areas were focused on in the literature review. These areas were connected to: 1) SMEs economic growth; 2) expectations about the future; and 3) enhancement of working conditions in SMEs. These areas were chosen partly because of its connection to the objective to achieve better positions in competing markets, partly because of the SMEs motivation to participate in the project.

Emling (2000) shows that family-owned companies in Sweden usually are not that much interested in economic growth, but more in how costs would develop in the future. Many of the companies seemed to be pleased with their current situation and did not strive for becoming a larger company. Schumacher (1975) describes this too when arguing for keeping a business small instead of focusing on expansion.

Concerns about the future were also expected, and here primarily how technology could be used to improve a company’s competitive advantages. Many studies that had been done showed that companies could achieve competitive advantages through the use of modern innovative ICT (cf. e.g. Hardes et al 1993; Callon 1996).

Finally, improving working conditions and life-style of the owners was an addressed field. Enhancing the owner’s life-style was found to be important in SMEs (cf. Westhead et al 1996; Ulbrich 2000). Here the main questions that concerned owners were about getting more spare-time and /or higher revenues they could benefit from.

Success and Failure Criteria

Success and failure are concepts that are used in different ways by different authors. Mirvis and Berg (1977) e.g. describe success and failure from an organization development context and state that, besides demands from organizations, our understanding of success and failure even is characterized by cultural influences. They mean that parents e.g. hope for a better life for their children. Mirvis and Berg (1977, p. 8) state that, “to foster and sustain these values our culture associates success with hard work and competence. At the same time it equals failure with indolence and inability.”

Our perception of what success and failure is, is influenced by what we learn from parents, teachers, institutions and so on. Therefore, success and failure are often measured in terms that people consider being good or bad at a certain time in a certain cultural environment. Trying to measure if something had been successful or not, have kept researchers busy for decades. They are often looking for objective measurements such as productivity. Marrow (1972) did so when e.g. describing whether changes in the automotive industry had been successful or not. He could find that productivity, and by those means success, was influenced by technology. If new technology would have been

applied in a way that increased productivity, a successful implementation had been taken place.

Other explanations for success can be found in an encyclopaedia. In Brockhaus (1979) e.g. one explanation is connected to economics and measured as profit and loss within an organization, meanwhile another one is based on psychology. The second states that success is the experience of confirmation when successfully realizing a self-set target, which is specified by one's own level of claim and performance motivation. This explanation is totally subjective and can therefore only be measured by the person who put up his/her own goals.

Consequently, success and failure can be measured in different ways. Therefore, one has to decide what and how to measure. Kahn (1975; 1988) e.g. measures success and failure in export industries. He initially decided to use an objective and a subjective criterion when measuring failure and success. Kahn (1975) decided to use pre-tax profit and sales as a criterion for objective measurement. This is in accordance to others, such as Marrow (1972), where success or failure can be expressed in numbers and economic terms. As subjective measurement Kahn (1975) uses an internal assessment to measure the degree of success and failure of a given venture. He investigates the degree to which expectations are met by comparing actual outcomes with expected outcomes regarding a number of criteria such as costs, export volume, profitability and so on. This way of measuring success and failure is in line with the psychological explanation of the encyclopaedia (Brockhaus 1979) and puts individuals and their perceptions in the foreground. A couple of years later, Kahn (1988) decides to move some of the subjective measurements to what he calls semi-objective. The degree to which expectations are met compared to the actual outcome, is moved from subjective to semi-objective and only individual statements are left as subjective. Furthermore, Kahn (1988) could observe that success and failure were not measured in equal terms in Sweden and Japan and confirmed Mirvis and Berg's (1977) statement on cultural differences in our understanding of what success and failure is.

When discussing and measuring success and failure in this paper a trisection, as suggested by Kahn (1988) with minor modifications for the purpose of investigating ICT dissemination projects, is used: 1) objective, pre-tax profit and sales; 2) semi-objective, as a degree to which outcomes did fulfil project requirements; and 3) subjective, as an internal assessment as to which individuals' expectations were met compared to the actual outcome.

PROJECT ACCOMPLISHMENT

The project was basically performed in three successive phases. But in contrast to the three phases the project was initially divided into (cf. A Short Project Description), the project management decided to change the order of these sequences. Phase two (cooperation and collaboration between the participating SMEs) and three (analysing businesses of 25 project participants) were performed in parallel and before the first phase (competence improvement). The project management decided to do so as it felt the need to inform the local SMEs about concrete findings from the region, rather than theories on electronic commerce or best practice from companies the local SMEs could not identify themselves with.

Phase I: Initialising

The project started with an initialising phase where the project management's tasks were to rewrite the original project plan and getting it approved as well as committing 25 SMEs and 3 external consultancies to the project (cf. Figure 1).

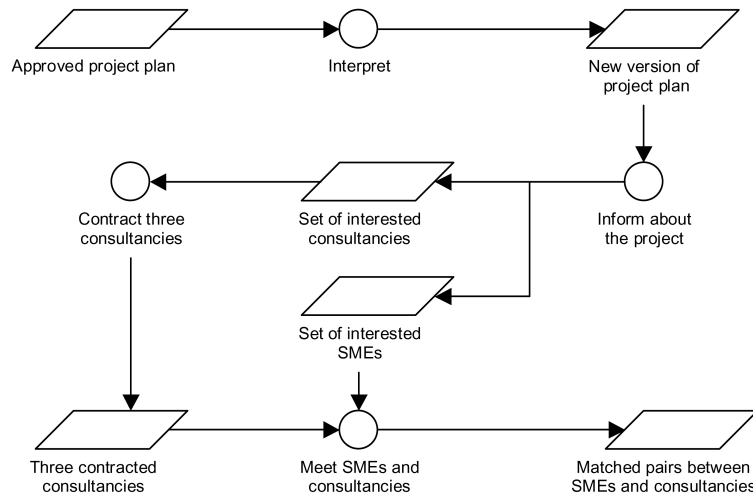


Figure 1. Initialising phase.

The next activity was to inform about the project. It was necessary to find at least 25 SMEs that wanted to participate in the project. One of the project managers had been working at the Chamber of Commerce and Industry of Southern Sweden before and had been in contact with several local SMEs which would give access to more than 200 SMEs. The project management decided to contact those companies where they felt or knew that the SMEs could be interested in participating in an electronic commerce project. In this way participating SMEs were selected by hand without spreading information about the project's existence to a broader audience.

In parallel, the project management decided to contact a number of consultancies that might fit to the project's requirements. The project budget included financial means for a couple of external consultancy hours. Therefore, consultancies who were willing to perform a couple of free hours, seeing the participation in the project as a strategic investment for their future electronic commerce ventures, were attracted to the project. In return a so-called Round Table where consultancies could share ideas and discuss all kind of issues regarding the project were initiated. Furthermore, the consultancies were promised to get early access to the results from the other consultancies before the university would publish any material from the project.

Three consultancies were contracted and meetings between one consultancy and 8-12 SMEs were conducted. During the meetings the invited SMEs were informed about the purpose of the project as well as the consultancy's way of carrying out the individual analyses in the SMEs.

After the initial meetings some of the SMEs dropped out and others were considered not to fit into the project. The project management and consultancies decided together which SMEs should participate in the second phase.

Phase II: Accomplishment

In the second phase (cf. Figure 2) the “real work” was done. The participating SMEs had a number of individual meetings with their assigned consultancy. The project management’s role in this phase was to help the consultancies to establish contact with the SMEs and to keep alive a discussion between the consultancies, which was done by organizing three Round Tables where results and problems with the project were discussed.

In parallel with activities in Phase II the project management prepared the third phase.

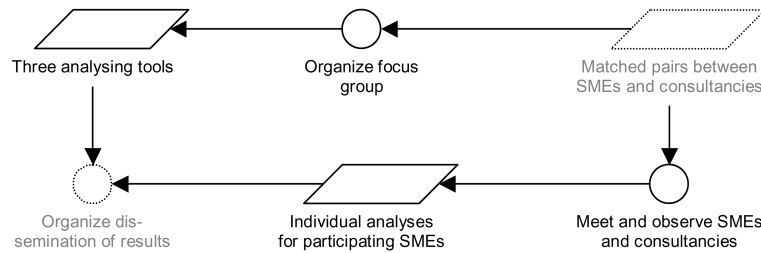


Figure 2. Accomplishment phase.

Phase III: Dissemination

The last phase concentrated on dissemination and evaluation of the project (cf. Figure 3). According to the approved project plan, information about electronic commerce had to be spread to at least 150 SMEs in the region. The project management invited local SMEs to an e-commerce conference which purpose was to inform about e-commerce in general and possible solutions for SMEs in particular. The consultancies were also invited to inform about their experiences from the project using one or two companies as case studies.

After the conference, written outcomes from the projects and some further project documentation were put together as final project documentation. This documentation was spread among all participants and invited companies to the conference.

In addition to the synthesis, two persons from Blekinge Institute of Technology evaluated the project. According to their evaluation the project was performed in line with the requirements stated in the decision the project was based on.

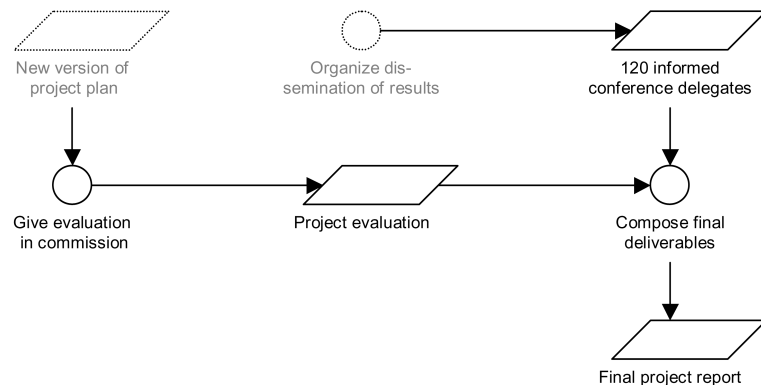


Figure 3. Dissemination phase.

But was it a success?

The evaluation of the project came to the conclusion that everything had been done according to the requirements. But an insider might have more insight in the project's progression and all problems that had to be handled at certain times. Therefore, I believe that the external evaluators could only evaluate the visible surface of the project using a semi-objective perspective. One who had the possibility to observe all different stages in the process should have had better chances to open the black box and look beyond the surface to question whether the project was a success or a failure.

BEYOND THE SURFACE

In the first phase it seemed that the project management put down a lot of effort to select the 25 SMEs that should participate in the project. The project manager, who came from the Chamber of Commerce and Industry of Southern Sweden, performed this task, as he already knew many of the regional SMEs. He contacted only 32 SMEs in the selection process. He thought that it would look very good that about 80% of the contacted SMEs wanted to participate in the project. But to whom did this look good? To himself, to show the others how effective he was? He was a new employee and might wanted to show that he was the right person for this project. Or could it have been good to apply for a new project showing that there was a high demand among SMEs to get involved in such projects? Did he succeed in picking the right companies in such a short time?

One reason behind the fast selection process was that the time frame for the project was quite limited. It was already spring when the first companies were contacted and an initial idea was to be finished with the individual analyses by the end of autumn. Unfortunately, it is very difficult to set up meetings during the period were people usually take vacation (mid-June to mid-August). Therefore, the project manager wanted to finish the selection process as fast as possible.

At the first common meeting between 11 SMEs and one of the consultancies it turned out that the selection process had not been that effective. After a presentation about how the consultancy wanted to carry out the project, the SMEs were asked how they thought electronic commerce could make a contribution to improve their businesses. From the answers some of the participants' expectations about the project and their knowledge about e-commerce could be estimated. While one person e.g. could state exactly what his company needed—which was an implementation of an EDI solution in order to be able to stay in business as subcontractor in the Swedish car industry—another one did not even know why he was joining the meeting—which he expressed by the statement that his boss had sent him to the meeting just to listen what it was about. These statements also show how wide the range was. Companies that already knew about e-commerce and how they might adopt it in their businesses, were much more engaged in the initial meetings and appeared more motivated to participate in the project than those without pre-knowledge. *Pre-knowledge on electronic commerce* would probably be one factor that would influent the outcomes of the project.

But even the relation between the project management and the SMEs influenced the factor of motivation. The relationship between the project manager who worked earlier at the Chamber of Commerce and Industry of Southern Sweden and the SMEs, turned out to be influenced by earlier contacts and probably also personal relations

between him and person in the SMEs. This could be observed, as it appeared that some SMEs did not join the project because of its content. In many cases companies accepted to participate in the project because the CEO and project manager knew each other and sometimes it was more commanded by feelings such as guilt (“I have to help them in this unpromising situation.”), rendering a service (“Well, in return for my service they have to help me next time.”) or avarice (“If we participate now, it looks quite good to get something for free in the future.”). Thus, *Motivation to be part of the project* was influenced both by *Feelings* and pure contacts that were based more on content.

The relationship between the abovementioned factors could be summarized as a group of driving forces for the SMEs (cf. Figure 4).

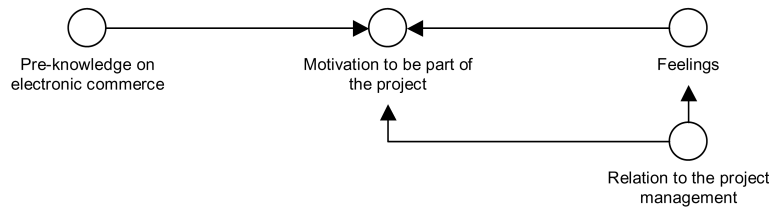


Figure 4. Driving forces for the SMEs.

Motivation and pre-knowledge are factors that affected the project progress. Overall it could be stated that those companies that had pre-knowledge and were more motivated also played a more active part in the second phase of the project. In these companies meetings with the consultancies went without mentionable incidents, whereas the other companies sometimes had to cancel an appointment or did not show up with the personnel that was required. E.g. one of the SMEs called a project manager and asked him to move a meeting with the consultancy the day after because they rather wanted to meet a client. It was obvious for the project manager that the new meeting with the client would not be critical for the company’s surviving in the future, but they preferred it anyway. In another example a SME did not call all different responsible managers to a meeting with the consultancy even if they earlier agreed to do so. The CEO simply did not see the need in having all managers gathered at the same time and he considered himself as the one who knew the company best anyway.

This shows that tactical issues came before strategically once. As the project was more of strategically nature, the *Degree of active participation (SMEs)* was directly influenced by motivation and pre-knowledge.

Active participation did also influent two goals of the projects. One was directly influenced, the *Degree to which extent suggestions would be usable for SMEs*. With this I mean the degree on how likely SMEs will adopt the suggestions from the consultancies after the project was finished. An unexpressed goal for the project management was that 80% of the participating SMEs should declare that the project was useful for them in the future. But the consultancies early doubt whether this could have been achieved. The inability to adopt new ways of thinking how to conduct business by using electronic commerce seemed to affect this goal. The other goal was to establish at least three new networks among the participating SMEs, as stated in the project plan. To establish new networks, of course, depended on the SMEs’ will to be included in them. If SMEs could see good reasons to join the network they probably would have done so, but to create

Interest to join a network was influenced by the SMEs motivation as well as the active participation.

During the second phase the interrelation between different factors affecting the outcomes of the project from the SME perspective increased to driving forces and active participation as shown in Figure 5.

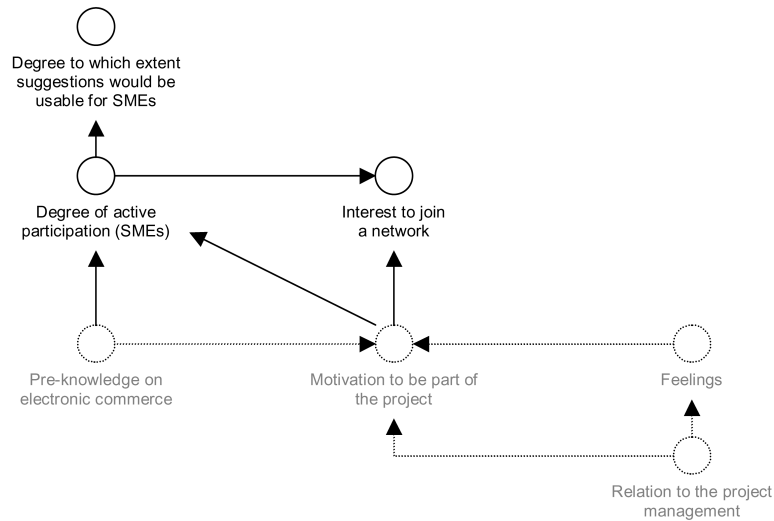


Figure 5. Driving forces and active participation in SMEs.

Shifting Perspectives

To achieve a high degree of usability is not only depending on the SMEs. So far we only discussed factors that describe levels and states in SMEs and how these will affect the outcomes of the project. We already started to see connections to the project management as well, but for now let us leave the SME perspective and look closer on what happened within the three consultancies.

The degree of usability is e.g. in high degree even depending on the consultancies efforts. It turned out to be a problem that the three consultancies all were well-established, large consultancies. One worked on a global market, one on a European and one on a Swedish market.

The average customer for these consultancies usually were large, often multi-national, companies with long-term commitments in fields such as outsourcing, system development and user training. Assignments like the one in the project, to analyse a SME within a fraction of hours they usually could use for similar task at larger companies, demanded a new way of thinking. So it seemed to be crucial whether the consultancies would succeed in developing new ways to produce usable consultancy reports. New methods and analysing tools were needed to be able to carry out analyses under the circumstances the project brought with it.

As already stated in the short project description, the consultancies should partly be recompensed by getting access to each others analysing tools. So it was not only the *Development of analysing tools* but also the *Consultancies' will to cooperate*, that were factors behind the desired degree of usability (cf. Figure 6).

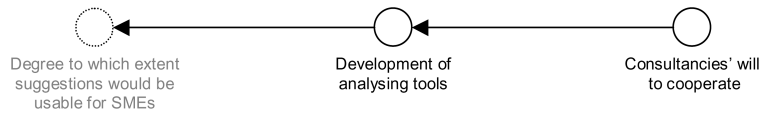


Figure 6. Creating preconditions for analyses.

The development of the analysing tools was incumbent on the consultancies, but in order to share experiences early and to learn from each other, the consultancies agreed in participating in Round Table meetings.

The Round Table meetings turned out to be a place where the consultancies were more listening than telling about their new ideas. If something was told to the others, it was mostly information that was later documented in the consultancies' reports but did not help that much to develop new analysing tools. One of the consultants summarized the Round Table meetings when he stated after the last one, that actually nothing was achieved in this group that already was known. And he was right. The desire to cooperate in order to achieve competitive advantages against other consultancies, which had not participated in the project, was overshadowed by the fact that the companies still saw themselves as competitors. Some ideas about how to do such analyses might came up at the consultancies, but they were not discussed in the Round Table neither reflected in the analysing tool description that each consultancy provided in the end of the project. One consultant told me afterwards that there was no money in SME e-commerce, and this might explain why one of the three consultancies did not show much interest in the Round Table meetings and did not put much effort on developing new analysing tools.

Shifting Perspective

For the project management it was a preferred goal to achieve some common analysing tools. The project management had an expectation that such a tool should even be usable for SMEs without a consultancy's help, in order to increase SMEs pre-knowledge before taking next steps in implementing electronic commerce and before even talking to a consultant. In this way the increased pre-knowledge could result in a positive circle with higher degrees of motivation and active participation. But the consultancies did not really want to develop such tools that should be given away for free. Thus, the *Development of free tools for SMEs* was strong depending on the *Consultancies' will to provide free tools* (cf. Figure 7).



Figure 7. Supporting SMEs in knowledge build-up.

Unfortunately, this never happened in the project. The consultancies either did not develop such tools, or did not tell the others that they did so. The only tool they used were different kind of questionnaires where SMEs were asked to prepare themselves before a meeting but these questionnaires were not transparent for the SMEs and therefore they did not serve the knowledge build-up in SMEs.

CONCLUSIONS

Regardless on how the project ended, the participating organizations learnt about themselves and how they could apply e-commerce in the future. Whether it is really concrete, such as a forthcoming implementation project or just the insight that the organization is not ready to use e-commerce at the moment, organizations might benefit from participating in the project from an organization development point of view. Even if one might call the project a failure the insights can be useful for the single participating organization. Therefore, the project can be seen as a success.

Others might say that the project where only the formal goals were reached, but the participants decided not to go further with own implementation projects, is a total fiasco. In this case projects that indicate not to be followed up and carried on by the participants should neither be supported nor start at all.

From a third point of view, one could argue that the project was a success despite some failures. This means that the project management could not be made responsible for what the participants would do after the project and that only matters that the formal project requirements were fulfilled.

Concluding it can be stated that the particular project described in this paper could be classified as a success, a total fiasco or a success despite failure, depending on how one would like to look at the project. Here, combining the three different views are called as “Failing with Success”.

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